

Features of mathematical modeling of in-situ combustion for production of high-viscosity crude oil and natural bitumens

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Abstract

© 2015 Springer Science+Business Media New York. Features of mathematical modeling of the process of recovery of high-viscosity crude oils and natural bitumens with use of in-situ combustion is examined based on a review of recent foreign publications. Hydrodynamic modeling is increasingly widely used. The importance of physical simulation on a "combustion-tube" apparatus, the results of which are irreplaceable in scaling-up the model to field dimensions, is demonstrated.

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Keywords

combustion, heavy oil, hydrodynamic modeling, in-situ, THAI